

2003

Summary of Indiana Solid Waste Facility Data

SOLID WASTE



Indiana Department of Environmental Management
Office of Land Quality



The ***2003 Summary of Indiana Solid Waste Facility Data*** is the twelfth in the series of annual reports of solid waste facility activities in Indiana. The information is compiled from solid waste facility quarterly reports submitted to the Indiana Department of Environmental Management (IDEM). The IDEM Office of Land Quality publishes the ***2003 Summary of Indiana Solid Waste Facility Data*** to provide information to the public about solid waste processing and disposal activities in Indiana. This report was prepared by staff of the Facilities Data Analysis Section.

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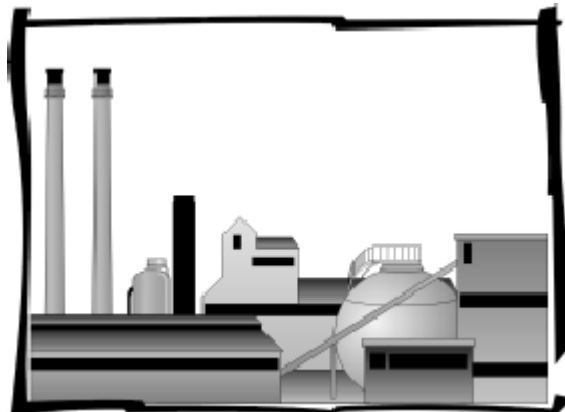
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Introduction

This report is the twelfth annual summary of Indiana's solid waste facility data. It is intended to provide information about Indiana's solid waste management. The report provides solid waste facility information for 2003 and contains:

- a summary of existing solid waste facilities;
- a summary of the amount, origin, and types of solid waste received at land disposal facilities and processing facilities; and
- a summary of out-of-state waste imports.



Previous reports summarized municipal solid waste (MSW) landfill capacity from amounts reported by facilities or from estimates made by IDEM. Beginning in 1996, landfills were required by regulation to submit con-

tour maps annually based on surveys conducted between October 1 and December 31 of each year. IDEM uses this information to calculate accurate and precise totals for both air-space and waste capacity. See Table 1 for the IDEM contact for MSW landfill capacity data for 1997 through 2003.

Prior to 1996, facilities reported non-municipal waste only as Construction-Demolition Waste and Special/Other Waste. In


This report was compiled from the solid waste facility quarterly reports submitted to IDEM by owners and operators of facilities that manage non-hazardous solid waste. Rules passed by the Solid Waste Management Board require all solid waste land disposal facilities (329 IAC 10-14-1) and processing facilities (329 IAC 11-14-1) to submit information to IDEM on a quarterly basis describing the origin, type, and amount of solid waste received by these facilities. Processing facilities must also report the amounts and destinations of waste transported off-site for recovery or disposal. Reports submitted to IDEM are on file and available for public review.

1996, IDEM added categories for Special Waste, which included Foundry Wastes and Other Special Wastes, for Coal Ash, and for Flue Gas Desulfurization by-products. Legislation enacted since the beginning of the period covered by the *2000 Summary of Indiana Solid Waste Facility Data* report eliminated Special Waste as a classification. To reflect this, Foundry Wastes, which was previously under Special Waste, is retained as a separate category under its own name. Other Special Wastes is no longer a separate sub-category. Any waste previously classified as Special Waste or Industrial Waste that does not fit any of the existing available categories is reported now under the category Other Waste. Coal Ash and Flue Gas Desulfurization are retained as classifications. Because of the changes in classification types through the years covered by the *2003 Summary of Indiana Solid Waste Facility Data* report, information for disposal by waste type by year will continue to be grouped as municipal waste and non-municipal waste to make comparisons among years meaningful.

This report emphasizes graphs, tables, and figures. Discussion text is included only as necessary to guide the reader through the report and to provide a context for the graphs and tables. Several sections that were included in previous releases of this report are not present in this year's report. Much of the information in these sections has been duplicated from year to year and/or is available in other IDEM publications. Table 1 shows how to obtain this information in addition to other information that may interest readers of this report.

Table 1.
Sources of Solid Waste Data

Information Available	Description	Contact
Land disposal facility quarterly reports	Origin, type, and tonnage of solid waste received. *	Michelle Weddle (317) 233-4624
Processing facility quarterly reports	Origin, type, and tonnage of solid waste received and destination information. *	Michelle Weddle (317) 233-4624
Composting facility annual reports	Type and volume of compost received and processed. *	Michelle Weddle (317) 233-4624
Transfer station inspection annual reports	Results from inspections of incoming waste.	Marcia Earl (317) 308-3016
Waste tire storage facility processors and transporters annual reports	On-site summary of incoming and outgoing tires.	Debby Baker (317) 232-0066
Tire dump sites and inspections of waste tire management operations	Information on illegal tire dump sites and progress of clean-up operations.	Anne Weinkauf (317) 308-3019
Municipal waste transportation manifests	Waste generation, transportation, and disposal information that accompanies waste from processing facilities for final disposal.	Debby Baker (317) 232-0066
Indiana MSW landfill disposal capacity reports	Remaining air space and disposal space at Indiana land disposal facilities.	Julian Mills (317) 232-7955
Solid waste management fee reports (IDOR)	Monthly reports showing fees collected for solid waste disposed at final disposal facilities.	Rachel Ballard (317) 615-2590
Solid waste disposal fee reports (IDEM)	Semi-annual reports showing fees collected for the disposal of specific types of solid waste.	Pat Beeler (317) 233-0408
Solid waste management district annual reports	Information on district programs and activities.	Monica Hartke-Tarr (317) 233-5431
Indiana solid waste diversion information	Calculations of amounts of waste estimated diverted from final disposal by reuse and recycling*	Michelle Weddle (317) 233-4624
Permitted solid waste facilities list	List of permitted solid waste facilities in Indiana.*	Debby Baker (317) 232-0066
MSW haulers list	List of registered MSW transporters.*	Debby Baker (317) 232-0066

* Online search and/or data download available at:  <http://www.IN.gov/idem/land/sw/index.html>

Solid Waste Data Framework

Several factors must be considered when discussing solid waste disposal in Indiana:

- type and quantity of the waste disposed;
- type and ownership of the facility that received the waste; and
- origin of the waste received.

The following pages give an overview of key concepts necessary for understanding solid waste disposal data.

Solid Waste Types

Solid waste can be categorized broadly as either hazardous waste or non-hazardous waste. This report deals only with **non-hazardous waste**, which can be further broken down into municipal solid waste and all other non-hazardous solid waste. **Municipal solid waste**, or MSW, is any solid waste generated by community activities or the operation of residential or commercial establishments (329 IAC 10-2-115). Prior to 1996, non-hazardous waste that is not MSW was subdivided into **construction-demolition debris**, **special waste**, and **other non-municipal** waste types. In 1996, the categories **foundry**, **coal ash**, and **flue gas desulfurization (FGD) waste** were added to provide more detailed waste information. Legislation enacted since the beginning of the period covered by the *2000 Summary of Indiana Solid Waste Facility Data* report eliminated Special Waste as a classification, as discussed in the **Introduction** to this report. Figure 1 shows the current solid waste categories. Table 2 provides more detailed explanations of these waste types.

Solid Waste Facilities

Solid waste facilities in Indiana fall into two broad permit categories: land disposal facilities and processing facilities. **Land disposal facilities** are subdivided further into four types: municipal solid waste landfills, construction-demolition sites, restricted waste sites (types 1 through 4), and non-municipal solid waste landfills. **Solid waste processing facilities** permitted by IDEM can be incinerators, transfer stations, solid waste balers, solid waste shredders, resource recovery systems, or garbage grinding facilities (329 IAC 11-2-43). Table 3 summarizes the number of permitted solid waste facilities that submitted data reports to IDEM during 2003. Table 4 describes the types of waste each facility type may receive.

Land Disposal Facilities

Municipal solid waste landfills (MSWLFs) can accept a wide range of solid wastes disposed from residential, commercial, institutional, and industrial sources, except hazardous waste regulated under 329 IAC 3.1. Of the four landfill types, only MSWLFs can accept municipal solid wastes (Table 4).

Construction-demolition sites accept only construction or demolition waste materials (329 IAC 10-9-3).

Figure 1.
Current Solid Waste Categories for Facility Quarterly Reports

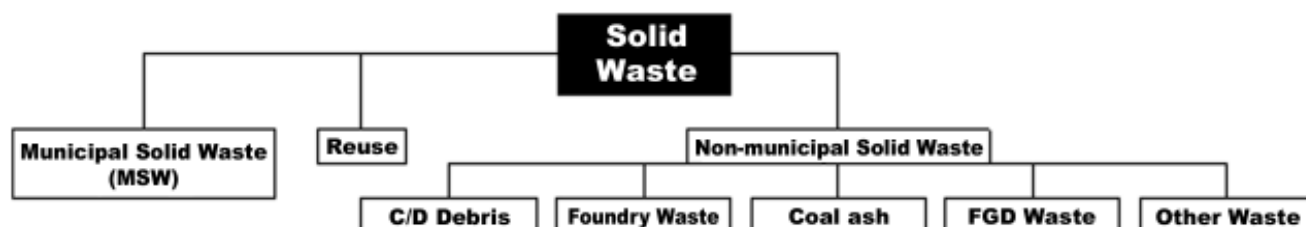


Table 2.
Solid Waste Classification Guide

TYPE	GENERAL CATEGORIES	EXAMPLES	
Municipal Solid Waste (MSW)	Residential - Single- and multi-family units - Other (campgrounds, parks, etc.) Commercial - Retail and wholesale - Service industry Institutional - Prisons, hospitals, schools, and universities - Government sector Industrial non-process - Offices, lunchrooms, restrooms	- Consumer goods - Packaging wastes - Food wastes - Office wastes - Yard trimmings / vegetation - Appliances - Automobile parts - Rinsed pesticide containers - Small animal carcasses - Household medical wastes - Household hazardous wastes (includes oil, batteries, etc.)	- Treated infectious wastes - Medical wastes - Waste tires - Used pallets - Cardboard - Furniture - Exempt other wastes (generated by a single generator in quantities less than 100 kilograms per month and disposed of in quantities less than 100 kilograms per shipment) - CESQG wastes
C/D Debris	Construction / Demolition - Construction industry - Demolition companies	- Uncontaminated solid waste resulting from the construction, remodeling, repair or demolition of structures; e.g., scrap lumber, wallboard	- Roofing materials - Plumbing and electrical fixtures - Bricks, concrete, glass - Non-asbestos insulation
Foundry	Foundry Waste	- Waste sand, slag, sludge, core waste, dust fines, etc.	
Coal Ash	Coal Ash	- Coal ash - Fly ash, bottom ash, etc. - Ash resulting from the combustion of coal	
FGD Waste	Flue Gas Desulfurization Byproducts	- Scrubber / FGD sludge - Pollution control sludges resulting from coal combustion	
Other	Other -Any other non-municipal solid waste not classified as C/D Debris, Foundry, Coal Ash, or FGD Waste.	- Manufacturing process wastes (resins, oxides, non-coal combustion sludges, etc.) - Asbestos-containing wastes - Pollution control, spill clean-up wastes	- Oil/gas/mining wastes - Incinerator residues - Low-level PCB wastes - Railroad ties
Reuse (landfills only)	Reuse -Waste utilized for construction in a landfill	- Alternate daily cover - Road construction	-Leachate collection system construction -Landscaping mulch

CESQG = conditionally exempt small quantity generator PCB = polychlorinated biphenyl FGD = flue gas desulfurization

Table 3.
Number of Permitted Solid Waste Facilities Operating During 2003

A. Land Disposal Facilities		B. Processing Facilities	
Municipal Solid Waste Landfills	37	Solid Waste Incinerators⁽⁴⁾	3
• <i>Privately Owned</i>	28	• Hospital ⁽⁵⁾	1
• <i>Publicly Owned</i>	9	• Municipal	1
		• Industrial ⁽⁵⁾	1
Construction-Demolition Sites⁽¹⁾	9	Transfer Stations	59
Restricted Waste Sites⁽²⁾	19	• <i>Privately Owned</i>	45
Non-municipal Solid Waste Landfills⁽³⁾	2	• <i>Publicly Owned</i>	14
TOTAL	67	TOTAL	62

(1) Some facilities are captive sites.

(2) Most facilities are captive sites.

(3) Facility is a captive site.

(4) Incinerators designed to accept at least ten tons solid waste or seven tons infectious waste per day.

(5) Facilities are captive sites.

Table 4.
Types of Land Disposal Facilities and Incinerators

A. Land Disposal Facilities		
Type	Acceptable Wastes	Data reported to IDEM
Municipal Solid Waste Landfill	Municipal waste, construction-demolition debris, other non-municipal wastes	Yes
Construction-Demolition Site	Construction-demolition debris only (unless otherwise approved by IDEM)	Yes
Restricted Waste Site	Non-municipal waste(s) specified in permit	Yes
Non-municipal Solid Waste Landfill	Wastes other than residential and commercial wastes	Yes
B. Incinerators		
Type	Acceptable Wastes	Data reported to IDEM
Large solid waste	Municipal waste, construction-demolition debris, other non-municipal wastes	Yes
Small solid waste ⁽¹⁾	Municipal waste, construction-demolition debris, other non-municipal wastes	No
Large infectious waste	Infectious waste (may also accept certain non-infectious waste)	Yes
Small infectious waste ⁽²⁾	Infectious waste (may also accept certain non-infectious waste)	No

(1) Incinerators designed to accept less than 10 tons per day (329 IAC 11-19-2).

(2) Incinerators designed to accept less than 7 tons per day (329 IAC 11-19-2).

Restricted waste sites can accept only materials specified in their landfill permits as determined by the classification criteria in 329 IAC 10-9-4. Coal combustion by-products comprise the largest portion of the waste tonnage disposed at restricted waste sites.

Like restricted waste sites, **non-municipal solid waste landfills** can accept only materials specified in their landfill permits. But non-municipal solid waste landfills have more stringent design standards than restricted waste sites. Most of Indiana's non-municipal solid waste landfills are currently captive facilities and therefore, are not available for public use.

In addition to the facility standards discussed here, each individual site may dispose of other materials not included in the above definitions according to its permit.

● Processing Facilities

The term *incinerator* is defined broadly as an engineered facility designed to burn solid waste under controlled conditions. As Table 4 shows, incinerators in Indiana are categorized and regulated as either **solid waste incinerators** or **infectious waste incinerators**.

Solid waste incinerators with a design capacity of at least 10 tons per day and infectious waste incinerators with a design capacity of at least 7 tons per day must obtain a solid waste permit under Indiana solid waste rules 329 IAC 11-9 and 329 IAC 11-17. Other incinerators must notify IDEM and comply with certain operational requirements as stated in 329 IAC 11-19-2 and are deemed to be permitted.

Although incinerators are permitted and regulated under the category of processing facilities, they are considered to be final disposal facilities for planning and disposal fee purposes, as evident in statutory language. The disposal reduction goal language of P.L. 10-1990 also categorizes incineration as a final disposal method.

A **transfer station** is a facility at which solid waste is transferred from a vehicle or container to another vehicle or container for transportation purposes (329 IAC 11-2-47). Transfer stations may manage materials in other ways according to their individual permits. For example, activities at a permitted transfer station may involve only the consolidation

of waste loads for further transport, or may also incorporate some form of materials recovery, during which recyclables are segregated for recycling or reuse.

Tire, paper, and medical waste processing sites also are defined as processing facilities by statute; however, no such facilities were in operation during 2003.

● Accuracy of Facility Reports

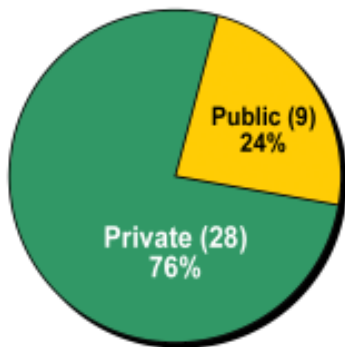
IDEM conservatively estimates that municipal solid waste tonnages may be over-reported by 20 to 40 percent due to some loads of municipal solid waste being mixed with non-municipal solid waste but identified only as municipal solid waste. According to studies in other states, construction-demolition wastes alone can constitute as much as one-third of municipal solid waste. The portion of municipal solid waste that is actually other non-municipal waste is unknown. Because of these uncertainties, caution should be used when attempting to draw conclusions regarding exact amounts of particular waste types.

Municipal Solid Waste Landfill Ownership

Since the facility quarterly report program began in 1991, more of Indiana MSW landfills have been owned privately than owned publicly (Table 3). Figure 2 shows the percentages of private and public ownership of MSW landfills in 2003.

Most construction-demolition sites and restricted waste sites are privately owned. About seventy-seven percent of Indiana's transfer stations and other permitted processing facilities are privately owned.

Figure 2.
Municipal Solid Waste Landfill Ownership by Percent During 2003



Note: The number in the parenthesis represents the number of facilities.

Origin of Waste

Origin of waste can be broken down by state and by county. A discussion of out-of-state waste is provided beginning on page 27.

Determination of the point of origin of waste by county is difficult due to the manner in which waste is collected and transported to landfills. Waste collection vehicles may transport the waste directly to a landfill and the hauler will report to the landfill operator the county of origin. If the waste collection routes include more than one county as points of origin, the hauler is required to report an estimated percentage of waste for each county to the landfill owner/operator. Furthermore, IDEM guidance instructs land disposal facilities to list the origin of waste received from transfer stations as the county in which the transfer station is located. The extent to which this actually occurs, however, is unknown.

Some waste collection vehicles transport waste to a transfer station, where the hauler is required to report the county (or counties) of origin. The waste received at the transfer station may be commingled with waste from other waste collection vehicles. All or part of the commingled waste may then go to one or more landfills, incinerators, transfer stations, or recycling/processing facilities, where the origin typically is reported as being the county in which the transfer station is located. Figure 3 illustrates the variety of paths that waste can take after it is collected.

In summary, the county identified on some quarterly reports may not be the point of origin, but in fact a transfer point for the waste before it is delivered to the landfill. Table 5 lists estimated amounts disposed at Indiana facilities by county of origin.

Figure 3.
Waste Disposal Pathways

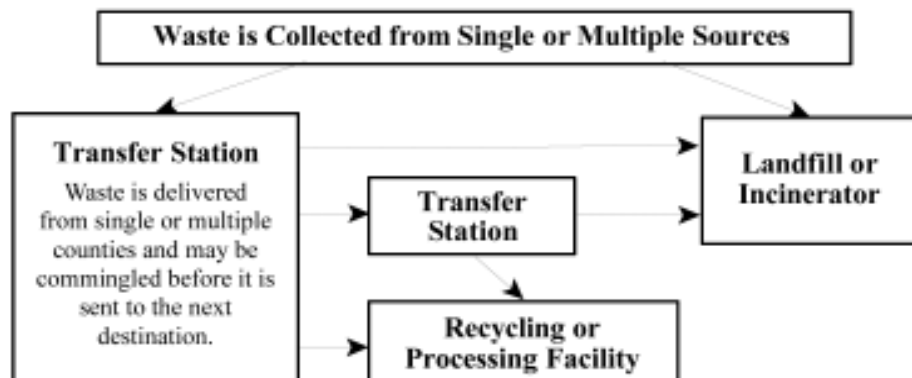


Table 5.
Waste Tons Disposed in Indiana⁽¹⁾, by Estimated County of Origin

County	1995	1996	1997	1998	1999	2000	2001	2002	2003
Adams	38,558	82,755	49,022	46,997	46,647	35,183	31,835	36,833	47,406
Allen	492,171	497,446	550,552	528,523	532,067	563,565	529,213	475,877	493,847
Bartholomew	167,021	160,957	173,275	168,594	170,936	168,640	138,449	144,879	103,590
Benton	1,642	1,844	1,900	2,199	2,429	1,768	2,342	2,179	1,949
Blackford	20,732	24,642	27,374	48,542	30,049	18,025	15,813	17,597	31,461
Boone	89,008	76,167	82,072	66,424	88,067	79,787	67,908	82,369	69,514
Brown	6,547	5,475	5,318	4,320	7,414	5,680	5,009	4,240	5,563
Carroll	16,707	20,003	23,776	19,773	22,294	21,530	24,437	21,492	20,820
Cass	37,950	44,121	43,908	52,297	46,347	44,244	58,014	44,333	49,415
Clark	82,523	84,029	89,442	95,526	81,612	98,511	89,357	79,744	73,544
Clay	16,472	19,986	22,152	22,960	27,370	28,258	19,236	22,715	23,013
Clinton	34,023	102,352	47,383	45,816	40,673	49,343	48,602	48,716	45,607
Crawford	2,310	2,108	2,040	5,744	4,716	1,412	1,299	1,361	1,223
Daviess	22,514	26,375	27,404	30,214	26,620	33,003	24,943	23,028	27,316
De Kalb	118,703	134,506	158,921	170,934	130,392	151,427	139,531	152,390	126,868
Dearborn	2,892	1,097	2,230	2,363	2,047	9,124	895	1,555	1,198
Decatur	25,690	26,493	25,927	26,226	26,186	28,521	31,507	30,840	33,129
Delaware	146,606	153,445	152,903	156,084	126,859	154,664	139,272	154,054	148,748
Dubois	45,760	48,633	41,479	42,606	48,287	57,241	58,420	37,615	43,161
Elkhart	396,768	403,842	418,501	436,867	501,018	413,623	396,569	373,738	384,136
Fayette	15,971	15,214	15,240	11,949	17,294	17,493	17,969	19,224	20,820
Floyd	71,948	75,227	67,047	55,835	58,657	56,326	49,136	32,263	29,586
Fountain	151,202	58,611	80,733	58,391	44,248	44,952	54,349	55,323	52,168
Franklin	349	4,526	5,235	4,104	4,300	5,468	7,804	6,532	5,562
Fulton	23,148	25,720	30,168	45,105	50,356	39,723	34,502	25,096	27,039
County	1995	1996	1997	1998	1999	2000	2001	2002	2003
Gibson	761,712	674,664	868,292	1,743,917	945,627	1,038,734	1,102,377	1,212,387	1,001,323
Grant	84,441	75,684	89,656	83,442	104,116	86,924	91,298	82,840	80,030
Greene	20,420	25,107	18,448	20,543	23,605	24,112	21,758	25,024	27,281
Hamilton	155,356	132,530	155,769	232,712	261,592	168,933	164,178	197,831	231,298
Hancock	29,239	48,941	100,261	110,809	115,518	120,722	103,938	121,638	116,343
Harrison	66	115	24	112	314	473	1,825	3,080	28,817
Hendricks	136,330	151,369	130,399	126,982	141,111	151,346	144,364	190,277	216,369
Henry	88,945	101,482	92,410	94,261	76,231	62,868	65,101	66,298	62,376
Howard	94,813	145,134	158,536	169,044	157,698	188,929	161,842	140,215	147,439
Huntington	52,858	49,907	39,284	38,921	38,263	41,292	62,478	61,618	44,952
Jackson	71,755	69,183	55,372	57,475	55,609	59,808	58,622	61,142	54,063
Jasper	485,459	441,459	142,311	159,756	166,873	168,003	163,210	174,913	181,972
Jay	23,164	21,791	22,599	54,742	47,752	23,032	25,997	32,009	28,084
Jefferson	227,992	200,642	95,900	63,526	69,832	126,774	111,541	144,881	105,274
Jennings	16,118	16,903	18,747	21,175	20,760	19,987	23,374	21,987	22,190
Johnson	81,456	100,369	155,967	155,694	149,403	161,435	176,820	186,809	197,351
Knox	72,336	40,287	68,449	53,088	52,723	60,216	67,999	56,611	61,158
Kosciusko	198,453	223,056	243,412	241,978	232,641	226,065	203,843	177,684	227,711
Lagrange	19,776	25,069	26,265	50,329	35,700	32,846	36,015	38,842	31,973
Lake	770,020	910,783	769,061	930,599	1,115,650	1,100,952	1,099,149	1,112,574	1,034,327
La Porte	156,527	140,152	149,638	134,509	124,388	128,926	110,455	141,069	115,806
Lawrence	55,743	42,217	46,633	39,565	36,273	57,211	72,008	49,951	62,595

County	1995	1996	1997	1998	1999	2000	2001	2002	2003
Madison	162,515	180,448	182,565	173,774	176,554	171,067	187,423	169,789	185,259
Marion	1,498,477	1,409,899	1,432,887	1,341,364	1,446,384	1,556,981	1,722,697	1,621,430	1,893,804
Marshall	86,040	73,941	81,075	91,128	97,866	97,969	83,882	87,323	81,106
Martin	9,811	7,798	7,898	16,886	19,298	14,916	15,899	18,136	13,020
Miami	34,860	28,231	28,471	32,925	41,634	42,320	43,549	37,493	39,547
Monroe	108,008	114,993	128,903	137,838	134,706	137,420	141,150	147,720	172,384
Montgomery	58,368	47,743	78,910	158,463	234,947	168,214	81,208	170,940	211,258
Morgan	29,448	49,670	41,391	49,879	49,548	65,400	58,946	60,120	63,295
Newton	13,021	18,355	17,910	13,727	12,638	12,616	13,313	11,907	14,777
Noble	45,305	47,762	82,792	140,173	113,300	114,368	97,152	86,829	90,233
Ohio	245	118	67	51	357	250	65	53	44
Orange	15,314	15,814	17,750	18,034	14,938	19,162	19,457	17,902	16,746
Owen	14,381	13,598	13,791	8,131	8,436	9,817	10,894	14,026	8,320
Parke	7,261	9,567	16,589	11,682	8,887	11,278	11,050	9,494	8,199
Perry	2,546	3,806	45,736	77,801	130,014	152,844	143,950	166,205	164,654
Pike	600,831	387,362	605,544	520,868	101,361	18,273	17,701	18,299	13,199
Porter	65,748	80,347	78,998	80,199	95,070	106,677	107,780	93,501	83,851
Posey	359,114	380,047	441,333	437,653	378,171	288,486	304,732	297,264	253,299
Pulaski	8,470	9,260	7,654	8,283	7,401	6,443	7,239	8,768	6,935
Putnam	29,756	36,454	30,472	28,944	29,539	36,378	37,544	33,995	38,407
Randolph	28,514	29,113	30,653	34,377	30,899	24,829	45,917	26,942	28,748
Ripley	17,977	12,872	13,219	12,123	12,952	11,593	8,610	12,237	13,869
Rush	39,091	30,802	20,262	30,453	36,719	26,615	25,008	26,713	29,382

County	1995	1996	1997	1998	1999	2000	2001	2002	2003
Scott	17,975	18,640	20,225	21,502	23,583	24,788	20,684	20,778	21,767
Shelby	64,486	84,071	100,964	100,517	104,384	113,831	106,111	111,123	95,409
Spencer	28,842	46,680	15,702	203,585	145,984	207,722	240,580	178,226	216,862
St. Joseph	248,902	241,115	253,189	232,307	200,874	217,838	207,146	176,815	190,566
Starke	13,697	14,544	14,593	11,985	9,294	8,203	5,888	7,672	9,015
Steuben	24,784	24,392	21,593	19,600	26,263	26,925	27,857	28,580	24,108
Sullivan	811,767	1,008,275	1,016,140	948,650	905,662	948,941	923,428	865,330	870,591
Switzerland	3,331	1,026	1,953	1,768	1,988	1,239	2,880	4,479	4,138
Tippecanoe	179,664	240,651	176,748	187,132	164,502	204,184	201,480	208,180	203,302
Tipton	14,802	13,039	14,092	12,267	16,906	12,555	13,843	16,417	15,613
Union	1,684	1,734	1,124	482	1,537	2,168	2,253	2,525	3,090
UNKNOWN	433	0	0	0	0	0	0	0	0
Vanderburgh	286,095	237,839	242,216	239,678	249,633	252,567	270,480	265,421	279,354
Vermillion	38,601	46,740	36,429	37,872	35,210	36,423	29,642	30,882	36,621
Vigo	225,832	213,793	202,182	206,839	229,081	212,474	191,523	188,441	190,323
Wabash	217,760	207,042	233,976	274,892	256,013	215,805	231,323	179,477	152,034
Warren	146	371	96	280	1,299	416	235	1,988	162
Warrick	44,989	42,168	45,379	49,245	45,359	43,342	53,035	51,009	59,265
Washington	18,317	19,364	18,189	20,782	19,949	28,020	32,517	23,174	24,476
Wayne	94,583	90,740	87,538	94,227	87,871	80,310	81,963	76,149	89,016
Wells	37,010	30,126	28,472	31,396	25,950	21,800	20,652	19,688	23,282
White	27,499	32,240	32,436	29,958	26,294	28,709	27,874	27,163	25,987
Whitley	27,419	28,341	16,540	10,354	14,770	21,797	17,238	26,293	26,430

(1) Note: The information in Table 5 reflects the amount of waste from each county that was disposed of in an Indiana final disposal facility, either by direct haul or through an Indiana transfer station. It does not include waste disposed out-of-state, which explains the low amounts reported for counties near state lines. 1993 and 1994 data can be viewed in the 2001 and 2002 Solid Waste Annual Report, respectively.

Solid Waste Land Disposal Facilities

The data in this annual summary reflect the information provided in the solid waste facility quarterly reports submitted to IDEM. There may be some differences between the numbers published in this summary report and previously published annual reports. These differences are due primarily to improvements in the data quality checks made by IDEM Office of Land Quality.

Table 6 displays the amount of solid waste disposed at Indiana land disposal facilities by each reported waste type during 2003. Figure 4 displays this information by landfill type,

Figure 4.
Disposal of Solid Waste by Landfill Type During 2003

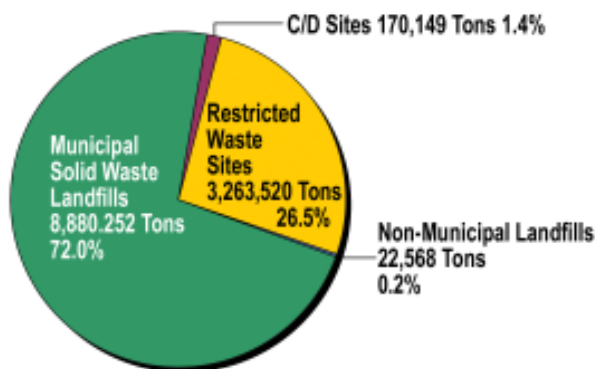
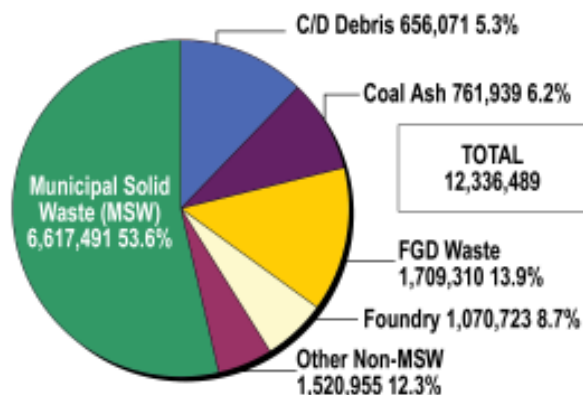


Figure 5.
Disposal of Solid Waste by Waste Type During 2003



and Figure 5 by waste type, both as percentages of total. Table 7 displays totals of solid waste disposed at Indiana land disposal facilities from 1995 through 2003 for municipal waste and all other waste types grouped as non-municipal waste. Table 8 shows the same information as Table 7 but excludes direct imports to Indiana landfills. Due to reporting limitations, waste originating outside Indiana that is brought into the state through an in-state transfer station and disposed in an Indiana landfill cannot be excluded from the quantities in Table 8. Figure 6 shows the municipal waste, non-municipal waste, and total disposal figures for all landfills in Tables 7 and 8 in graph form to more clearly depict disposal trends year-to-year.

Waste received at solid waste incinerators is discussed on page 24 in the chapter on processing facilities.

Table 6.
Disposal of Solid Waste by Landfill Type and Waste Type During 2003

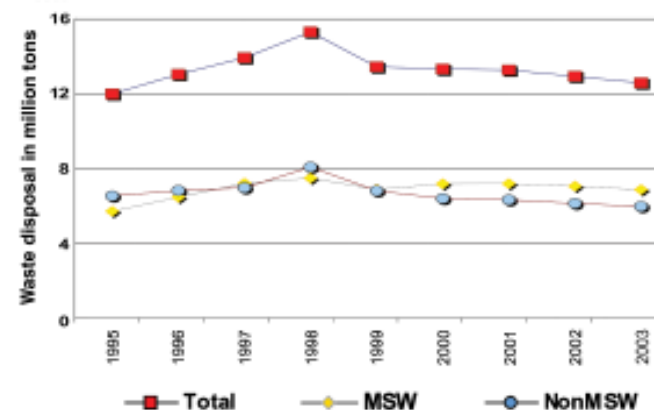
Tons of Waste Disposed					
Waste Type	Municipal Solid Waste Landfills	Construction/ Demolition Sites	Restricted Waste Sites	Non-Municipal Solid Waste Landfills	All Landfills
Municipal	6,617,491	0	0	0	6,617,491
C/D Debris	475,630	170,149	10,292	0	656,071
Coal Ash	3,416	0	758,792	0	761,939
FGD Waste	0	0	1,709,310	0	1,709,310
Foundry	304,300	0	766,423	0	1,070,723
Other NonMSW	1,479,685	0	18,703	22,568	1,520,955
TOTAL	8,880,252	170,149	3,263,520	22,568	12,336,489

Table 7.
Annual Disposal at Solid Waste Land Disposal
Facilities by Landfill Type and Waste Type
(Includes waste imports to Indiana)

Landfill Type	Waste Type	Tons of Waste Disposed								
		1995	1996	1997	1998	1999	2000	2001	2002	2003
Municipal Solid Waste Landfills	MSW	5,461,501	6,217,748	6,959,493	7,233,635	6,634,100	6,928,077	6,937,485	6,804,633	6,617,491
	NonMSW	2,277,583	2,506,843	2,757,504	2,901,949	2,821,091	2,331,200	2,328,151	2,098,482	2,262,761
	TOTAL	7,739,084	8,724,591	9,716,997	10,135,584	9,455,191	9,259,277	9,265,636	8,903,115	8,880,252
Construction/ Demolition Sites	MSW	0	0	0	0	0	0	0	0	0
	NonMSW	144,773	212,453	187,725	195,723	229,010	146,536	127,680	118,664	170,149
	TOTAL	144,773	212,453	187,725	195,723	229,010	146,536	127,680	118,664	170,149
Restricted Waste Sites	MSW	0	0	0	0	0	0	0	0	0
	NonMSW	3,828,695	3,824,287	3,740,680	4,689,484	3,438,190	3,525,067	3,551,753	3,547,708	3,263,520
	TOTAL	3,828,695	3,824,287	3,740,680	4,689,484	3,438,190	3,525,067	3,551,753	3,547,708	3,263,520
Nonmunicipal Solid Waste Landfills	MSW	0	579	0	0	0	0	4,381	0	0
	NonMSW	31,441	28,271	34,016	41,264	71,131	140,201	70,468	117,284	22,568
	TOTAL	31,441	28,850	34,016	41,264	71,131	140,201	74,849	117,284	22,568
All Landfills	MSW	5,461,501	6,218,327	6,959,493	7,233,635	6,634,100	6,928,077	6,941,866	6,804,633	6,617,491
	NonMSW	6,282,492	6,571,854	6,719,925	7,828,420	6,559,422	6,143,004	6,078,052	5,882,138	5,718,998
	TOTAL	11,743,993	12,790,181	13,679,418	15,062,055	13,193,522	13,071,081	13,019,918	12,686,771	12,336,489

Figure 6.
Annual Disposal at All Solid Waste Land Disposal Facilities

(Includes waste imports to Indiana)



(Excludes direct imports to Indiana landfills)

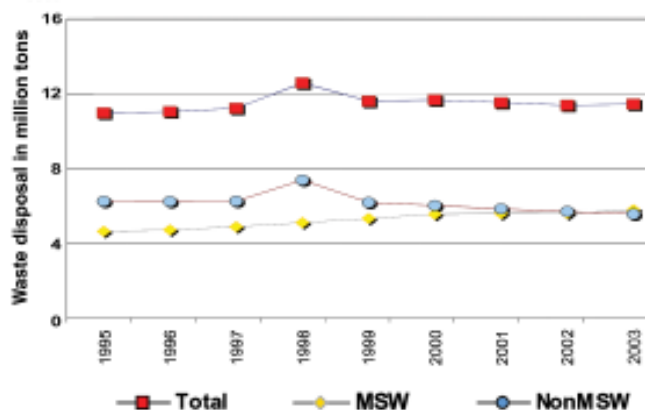


Table 8.
Annual Disposal at Solid Waste Land Disposal
Facilities by Landfill Type and Waste Type
 (Excludes direct imports to Indiana landfills)

Landfill Type	Waste Type	Tons of Waste Disposed								
		1995	1996	1997	1998	1999	2000	2001	2002	2003
Municipal Solid Waste Landfills	MSW	4,620,376	4,696,297	4,858,656	5,080,056	5,297,116	5,515,530	5,546,617	5,555,518	5,754,129
	NonMSW	2,195,249	2,195,206	2,275,083	2,407,182	2,439,624	2,166,705	2,053,755	1,902,596	2,127,281
	TOTAL	6,815,625	6,891,503	7,133,739	7,487,238	7,736,740	7,682,235	7,600,372	7,458,114	7,881,410
Construction/ Demolition Sites	MSW	0	0	0	0	0	0	0	0	0
	NonMSW	137,998	135,055	148,257	166,489	205,432	144,976	126,264	97,236	105,576
	TOTAL	137,998	135,055	148,257	166,489	205,432	144,976	126,264	97,236	105,576
Restricted Waste Sites	MSW	0	0	0	0	0	0	0	0	0
	NonMSW	3,828,695	3,824,287	3,740,680	4,689,484	3,438,190	3,525,067	3,551,753	3,547,708	3,263,521
	TOTAL	3,828,695	3,824,287	3,740,680	4,689,484	3,438,190	3,525,067	3,551,753	3,547,708	3,263,521
Nonmunicipal Solid Waste Landfills	MSW	0	579	0	0	0	0	4,381	0	0
	NonMSW	31,441	28,271	34,016	38,860	49,300	139,966	67,739	112,793	22,568
	TOTAL	31,441	28,850	34,016	38,860	49,300	139,966	72,120	112,793	22,568
All Landfills	MSW	4,620,376	4,696,876	4,858,656	5,080,056	5,297,116	5,515,530	5,550,998	5,555,518	5,754,129
	NonMSW	6,193,383	6,182,819	6,198,036	7,302,015	6,132,546	5,976,714	5,799,511	5,660,333	5,518,946
	TOTAL	10,813,759	10,879,695	11,056,692	12,382,071	11,429,662	11,492,244	11,350,509	11,215,851	11,273,075

Municipal Solid Waste Landfills

Most questions about land disposal facilities deal primarily with municipal solid waste (MSW) landfills. MSW landfills receive waste materials from residences, businesses, institutions, and industries. As a result of the wide range of waste types these landfills receive, they are built to more stringent landfill design criteria than, for example, a construction-demolition site that accepts only construction-demolition wastes. Figure 7 breaks down the amounts disposed at MSW landfills by waste type shown in Table 6 as a percentage of total.

Figure 7.
Disposal of Solid Waste at Municipal Solid Waste Landfills by Waste Type During 2003

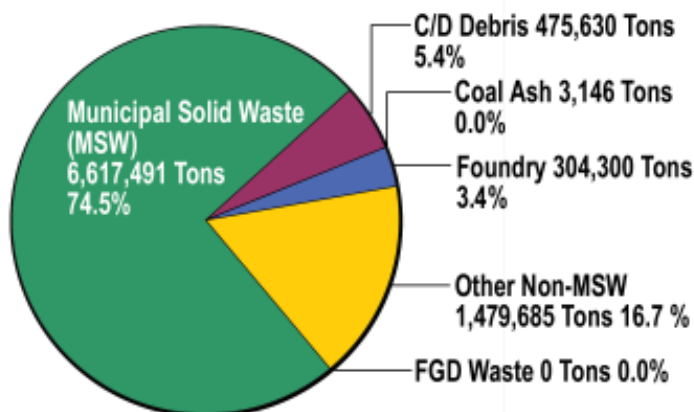


Figure 8.
Annual Disposal at Municipal Solid Waste Landfills

(Includes waste imports to Indiana)

(Excludes direct imports to Indiana landfills)

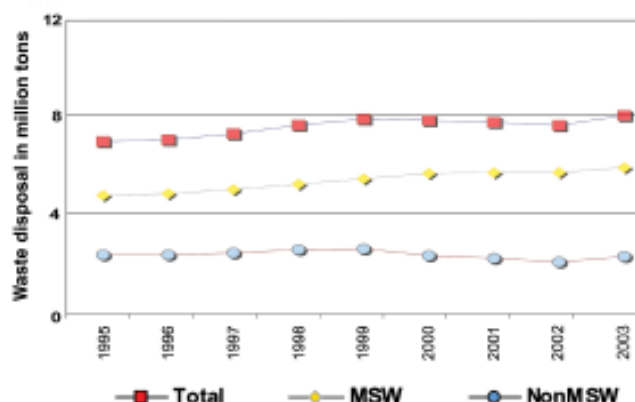
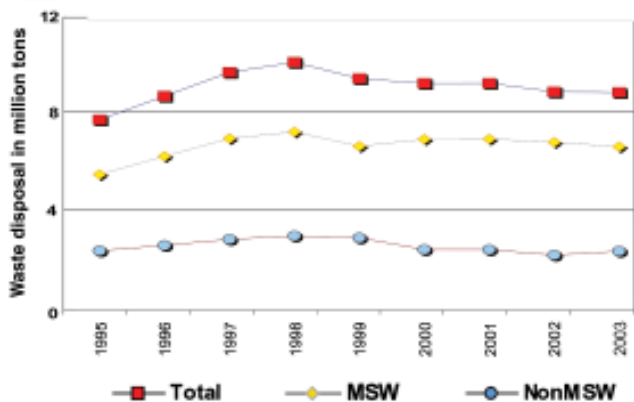


Figure 8 shows the municipal waste, non-municipal waste, and total disposal figures for MSW landfills in Tables 7 and 8 in graph form, similarly to Figure 6, which shows this for all landfills. Again, this is to more clearly depict disposal trends year-to-year.

Figure 9 shows the disposal of out-of-state waste vs. Indiana waste at MSW landfills. A more detailed discussion of out-of-state waste is provided beginning on page 27.

Figure 9.
Annual Disposal at Municipal Solid Waste Landfills by Waste Origin

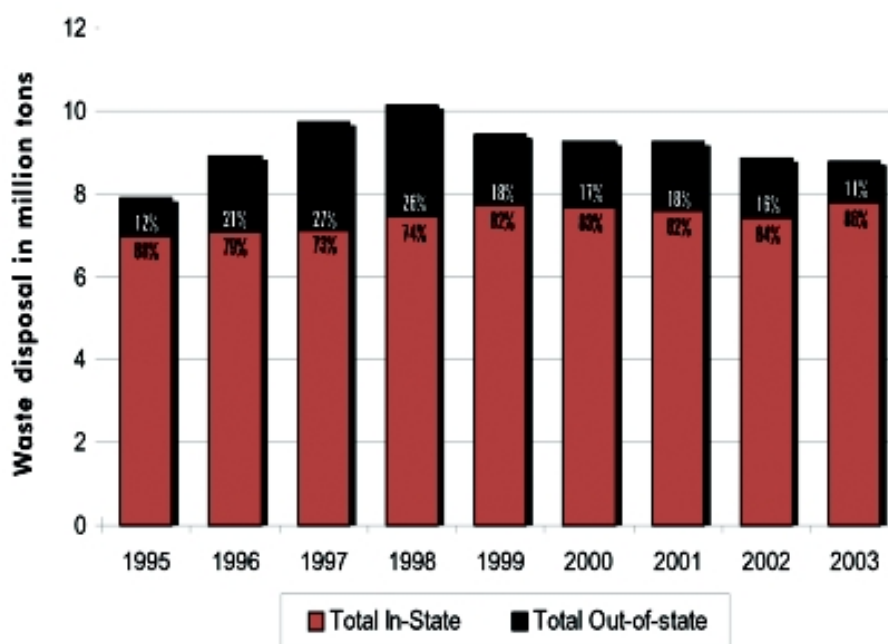


Figure 10 shows the distribution of disposal among MSW landfills. Note that almost one third (30% or 11) of MSW landfills accepted less than 100,000 tons of solid waste.

Figure 10.
Distribution of Disposal at Municipal Solid Waste Landfills During 2003

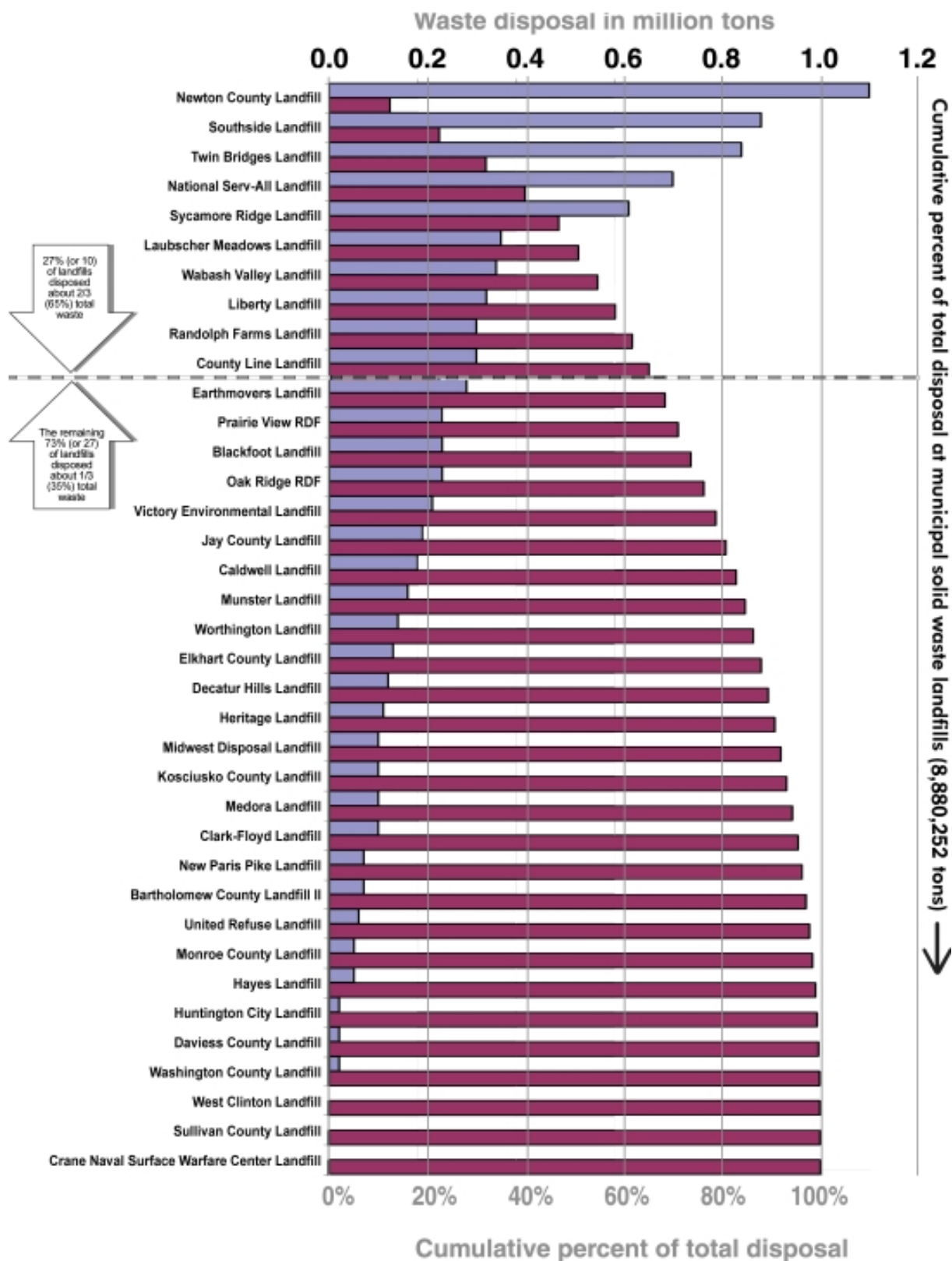


Table 9 summarizes total disposal at individual MSW landfills during 2003. More detailed disposal data for all solid waste disposal facilities is given at the end of this report in "2003 Solid Waste Facility Profiles."

Table 9.
Total Disposal at Municipal Solid Waste Landfills During 2003

County Location of Facility	Facility Name	Waste Disposal in Tons	Number of Operating Days	Disposal per Operating Day (Tons)
Allen	National Serv-All Landfill	702,782	307	2,289
Allen	United Refuse Landfill	62,689	173	362
Bartholomew	Bartholomew County Landfill II	70,251	305	230
Cass	Oak Ridge Recycling and Disposal Facility	230,236	293	786
Clark	Clark-Floyd Landfill	103,490	308	336
Clinton	Midwest Disposal Landfill	109,963	313	351
Daviess	Daviess County Landfill	24,878	301	83
Decatur	Decatur Hills Landfill	128,802	307	420
Elkhart	Earthmovers Landfill	287,063	308	932
Elkhart	Elkhart County Landfill	137,231	290	473
Fulton	County Line Landfill	303,978	262	1,160
Greene	Worthington Landfill	146,059	293	498
Hendricks	Twin Bridges Recycling and Disposal Facility	884,995	308	2,743
Henry	Hayes Landfill	52,729	306	172
Huntington	Huntington City Landfill	28,600	269	106
Jackson	Medora Sanitary Landfill	104,014	308	338
Jay	Jay County Landfill	190,303	289	658
Kosciusko	Kosciusko Landfill	106,146	258	411
Lake	Munster Landfill	164,719	261	631
Marion	Southside Landfill	889,238	310	2,869
Martin	Crane Naval Surface Warfare Center Landfill	1,776	248	7
Monroe	Monroe County Landfill	56,413	308	183
Newton	Newton County Landfill Partnership	1,102,460	307	3,591
Pike	Blackfoot Landfill	233,526	311	751
Putnam	Heritage Landfill	117,157	220	533
Randolph	Randolph Farms Landfill	304,082	312	975
St. Joseph	Prairie View Recycling and Disposal Facility	236,360	288	821
Shelby	Caldwell Landfill	181,427	365	497
Sullivan	Sullivan County Landfill	3,946	253	16
Vanderburgh	Laubscher Meadows Landfill	357,425	307	1,164
Vermillion	West Clinton Landfill	4,362	308	14
Vigo	Victory Environmental Landfill	218,223	128	1,705
Vigo	Sycamore Ridge Landfill	614,062	203	3,025
Wabash	Wabash Valley Landfill	345,758	307	1,126
Washington	Washington County Landfill	20,922	302	69
Wayne	New Paris Pike Landfill	72,643	248	293
White	Liberty Landfill	321,545	297	1,083
Total for all Municipal Solid Waste Landfills		8,880,252		

Other Solid Waste Land Disposal Facilities

Construction-Demolition Sites

Construction-demolition sites receive only construction and demolition waste as described in Table 2. As shown in Figure 11, these sites did not receive a significant amount of out-of-state waste until 1996, when the amount of out-of-state waste increased from 5 to 36 percent of total receipts. Percentages of out-of-state waste received by construction-demolition sites returned to their pre-1996 levels in 2000 and 2001 but increased again thereafter. Table 10 provides a listing of the construction-demolition landfills and the total amount of waste each facility received in 2003.



Figure 11.
Annual Disposal at Construction-Demolition Sites by Waste Origin

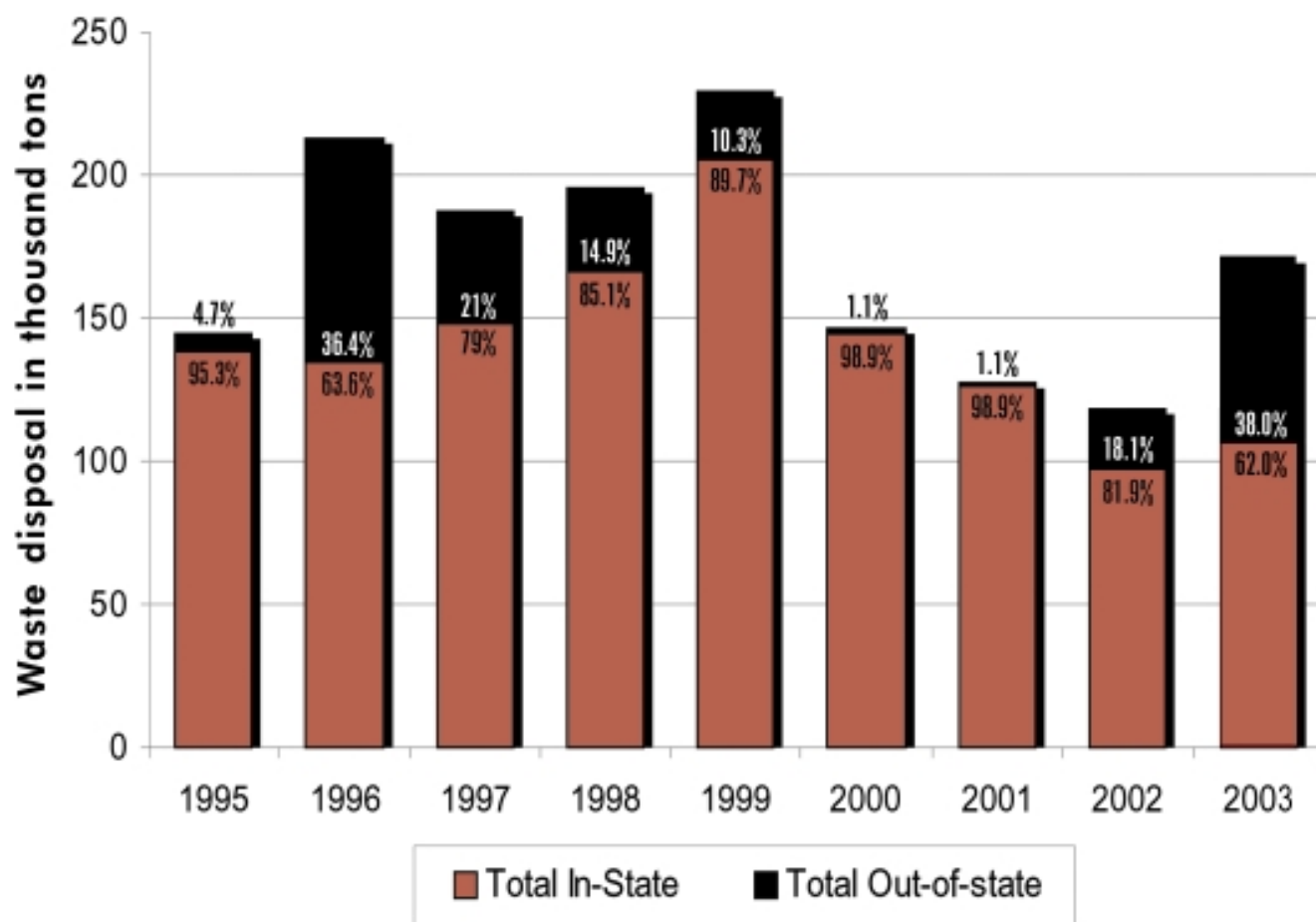
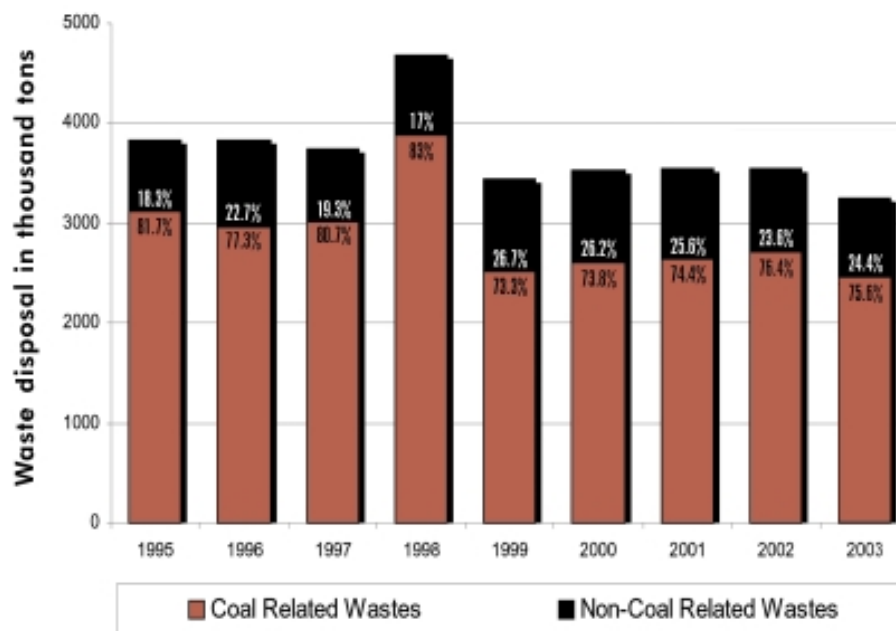


Table 10.**Total Disposal at Construction-Demolition Sites During 2003**

County Location of Facility	Facility Name	Waste Disposal In Tons
Allen	M & M C/D Site	1,969
Elkhart	Warner & Sons Inc. C/D Site	9,532
Lake	Lake County C/D Site	112,585
Madison	Industrial Removal C/D Site	746
Martin	Crane Naval Surface Warfare Center C/D Site	2,065
Monroe	Monroe County SWMD C/D Site	151
Pike	Velpen Solid C/D Site	15,213
Posey	Springfield Environmental C/D Site	22,219
Vermillion	West Clinton II C/D Site	5,669
Total for All Construction-Demolition Sites:		170,149

Restricted Waste Sites

Restricted waste sites also receive a limited range of wastes, as specified in their facility permits. Most sites are ash, sludge, or foundry monofills. Coal combustion wastes from power plants accounted for 76 percent of the total tonnage disposed at restricted waste sites in 2003 (Figure 12). Note that prior to 1996, coal combustion wastes were not individually reported waste types on the solid waste facility quarterly reporting program. Before 1996, the amount of coal-related wastes disposed was estimated based on the amount of waste received at specific types of restricted waste sites related to coal combustion.

Figure 12.
Annual Disposal at Restricted Waste Sites by Waste Type⁽¹⁾

(1) Percentages estimated in 1995.

The total waste disposed each year in restricted waste sites is much larger than the amount received at construction-demolition sites, although not as large as the amount of waste received by municipal solid waste landfills (Figure 4).

No restricted waste sites have reported receiving out-of-state waste since 1992. Table 11 provides a listing of the restricted waste sites and the total amount of waste each facility received during 2003.

Table 11.
Total Disposal at Restricted Waste Sites During 2003⁽¹⁾

County Location of Facility	Facility Name	Waste Disposal In Tons
Bartholomew	City Garage Site RWS 3	11,082
De Kalb	Auburn Foundry RWS 3	79,670
Fountain	Harrison Steel Cast RWS 3	52,119
Gibson	Gibson Station Scrubber RWS 2	967,042
Jasper	Schahfer FGD Sludge RWS 1	193,791
Jefferson	Clifty Creek Coal Ash Disposal RWS 3	79,198
Knox	Scepter Industries RWS 1	21,090
Kosciusko	Dalton Foundry RWS 3	114,636
Lake	U.S. Steel - Gary Works RWS 1	240,021
Lawrence	Lehigh Portland Cement Co RWS 1	18,639
Noble	Dalton Corp. Kendallville Mfg. Fac. Monofill RWS 3	48,848
Perry	Waupaca Foundry RWS 3	157,954
Pike	Petersburg Generating Station RWS 3	2,478
Posey	SIGECO Filter Cake Disposal RWS 3	171,409
Spencer	Rockport Plant Ash RWS 2	192,656
Sullivan	Merom Station RWS 2	861,529
Wabash	Ford Meter Box RWS 3	3,017
Wabash	Wabash Alloys RWS 1	48,341
Total for All Restricted Waste Sites:		3,263,520

(1) Yard 520 RWS 3 received no waste in 2002 and 2003.

Non-municipal Solid Waste Landfills

The 1996 rules introduced the terms municipal solid waste (MSW) landfill and non-municipal solid waste (Non-MSW) landfill, which have been used throughout this report. In previous reports, Non-MSW landfills were grouped with MSW landfills under the general heading of “sanitary landfills.” MSW landfills were discussed earlier in this section. His-

torically there have been only a few Non-MSW landfills in Indiana, all captive facilities, not available for public use. Non-MSW landfills receive any type of waste described in Table 2 except MSW, pursuant to the specifications of their permits. Table 12 provides a detail of the Non-MSW landfill operating in 2003 and the total amount of waste it received.

Table 12.

Total Disposal at Non-municipal Solid Waste Landfills During 2003⁽¹⁾

County Location of Facility	Facility Name	Waste Disposal In Tons
Monroe	Dillman Road WWTP Landfill	22,568
Total for All Non-municipal Solid Waste Landfills:		22,568

(1) Heritage Landfill was recently re-permitted as an MSW landfill and appears in Table 9. Inland Nonmunicipal Landfill received no waste in 2003.

Solid Waste Processing Facilities

Solid waste processing facilities include:

- solid waste incinerators;
- transfer stations; and
- other processing facilities.

Table 13 displays the amount of solid waste received by permitted Indiana incinerators (excluding small-capacity incinerators) and transfer stations by each reported waste type during 2003. Table 14 displays similar information from 1995 through 2003 for municipal and non-municipal waste. More detailed data for all solid waste processing facilities is given at the end of this report in "2003 Solid Waste Facility Profiles." Other processing facilities are discussed later in this section.

Table 13.

Solid Waste Received by Processing Facilities by Waste Type During 2003

Waste Type	Tons of Waste Received	
	Incinerators ⁽¹⁾	Transfer Stations
Municipal	697,634	2,544,071
C/D	0	486,140
Coal Ash	0	0
FGD Waste	0	0
Foundry	0	0
Other Non-MSW	24,704	31,550
TOTAL	722,338	3,061,761

⁽¹⁾ Does not include small-capacity incinerators receiving less than 10 tons/day of solid waste or 7 tons/day of infectious waste.

Table 14.

Annual Amount of Solid Waste Received by Processing Facility Type and Waste Type (Includes waste imports to Indiana)

Facility Type	Waste Type	Tons of Waste Received								
		1995	1996	1997	1998	1999	2000	2001	2002	2003
Incinerators ⁽¹⁾	MSW	668,499	689,859	681,147	670,380	669,718	632,880	636,072	646,621	697,634
	NonMSW	22,439	22,839	28,183	25,552	27,901	28,672	30,274	41,591	24,704
	TOTAL	690,938	712,698	709,330	695,932	697,619	661,552	666,346	688,212	722,338
Transfer Stations	MSW	1,409,747	1,434,712	1,523,836	1,753,009	1,935,432	2,230,153	2,282,366	2,384,806	2,544,071
	NonMSW	184,807	291,183	404,897	476,100	474,227	499,069	470,251	482,556	517,690
	TOTAL	1,594,554	1,725,895	1,928,733	2,229,109	2,409,659	2,729,222	2,752,617	2,867,362	3,061,761

⁽¹⁾ Does not include small-capacity incinerators receiving less than 10 tons/day of solid waste or 7 tons/day of infectious waste.

Solid Waste Incinerators

For reporting and permitting purposes, solid waste incinerators are regarded as processing facilities. For solid waste planning and fee purposes, incinerators are considered final disposal facilities. Table 15 provides a list of the permitted solid waste incinerators that operated in 2003 and the total amount of solid waste received by these facilities. The list does not include the small-capacity incinerators in Indiana that are not required to report to IDEM.

Annually, Covanta Energy Indianapolis Resource Recovery Facility receives roughly five percent of the total tonnage of waste either land disposed or incinerated in Indiana. From the waste received by Covanta during 2003, there was about 187,700 tons of ash produced and delivered to the Southside Landfill for disposal. The ash produced is equivalent to about 26 percent of the waste received at Covanta.

Table 15.
Total Waste Received by Incinerators During 2003

County Location of Facility	Facility Name	Waste Received In Tons
Marion	Covanta Energy Indianapolis Resource Recovery Facility	717,274
Marion	Wishard Memorial Hospital	2,491
Posey	General Electric Ultem Thermal Oxidizer System	2,573
Total for All Incinerators		722,338

Transfer Stations

Transfer stations are facilities that allow waste from individual collection vehicles to be offloaded and then re-loaded into larger vehicles for transport to final disposal facilities. Some transfer stations recover recyclable materials and send them to processing or recycling facilities.

The accountability for differences in incoming and outgoing waste at transfer stations has improved over the years. Although for the first few years of quarterly reporting there was no mechanism to track such differences, reporting forms were improved to include materials recovery. Facilities are also required to submit written explanations if the difference between incoming and outgoing tonnage totals is due to a reason other than materials recovery. In most instances, these differences are the result of materials recovery or differences in volume-to-tons conversions.

As discussed on page 10, it is difficult to track the true origin of waste. Waste collection vehicles may transport their waste directly to a landfill or they may take it to a transfer station. A

Figure 13.
Transfer Station Waste Management



landfill receiving waste from a transfer station documents it as originating from the county in which the transfer station is located, regardless of whether any of the waste was generated in that county. The issue is further complicated when the transfer station receives waste from two or more counties, mixes the loads in a central location, removes various recyclables, then transports the waste to two or more landfills, another transfer station and/or a recycling facility. Figure 13 illustrates how the tonnage received from the counties may be known, but the waste sent for final disposal or processing may not directly identify the point of origin.

Table 16.
Destination of Waste Sent from Transfer Stations for Final Disposal

Year	Total Tons Sent To All Facilities	To Indiana Facilities		To Out-of-State Facilities	
		Tonnage	% of Total	Tonnage	% of Total
1995	1,519,856	1,344,676	88.5	175,180	11.5
1996	1,639,145	1,468,074	89.6	171,071	10.4
1997	1,835,145	1,629,723	88.8	205,422	11.2
1998	2,131,526	1,917,838	90.0	213,688	10.0
1999	2,317,959	2,059,268	88.8	258,691	11.2
2000	2,577,813	2,268,754	88.0	309,059	12.0
2001	2,638,995	2,303,805	87.3	335,190	12.7
2002	2,737,515	2,377,746	86.9	359,770	13.1
2003	2,869,329	2,488,397	86.7	380,932	13.3

Quarterly reports from transfer stations currently provide the only source of systematic information on the amount of waste exported by Indiana. Table 16 shows the amount of waste sent out-of-state from transfer stations as compared with the amount of waste sent to Indiana final disposal facilities from 1995 to 2003. Figure 14 shows a more detailed breakdown of the destination information for 2003. This information does not provide a complete picture of Indiana waste exports because the totals in Table 16 are based only on information obtained from processing facility quarterly reports. The amount of waste hauled directly from an Indiana residence or business to an out-of-state destination is not adequately known due to reporting limitations.

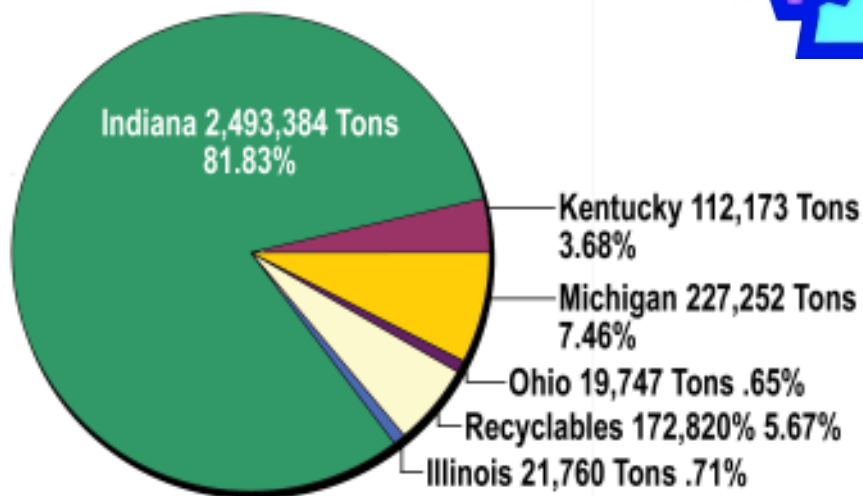
More detailed data for transfer stations is given at the end of this report in "2003 Solid Waste Facility Profiles."

Other Processing Facilities

Other processing facilities permitted by IDEM could include paper and medical waste processing facilities. None of the facilities operating during 2003 are classified under this category.

IDEM issues permits to any solid waste processing facility upon which is located a solid waste incinerator, transfer station, solid waste baler, solid waste shredder, resource recovery system, composting facility, or garbage grinding facility (as defined in 329 IAC 11-2-43, unless excluded by 329 IAC 11-3-1).

Figure 14.
Destination of Waste Sent from Transfer Stations During 2003



Out-of-State Waste

Solid waste imported from out-of-state sources can be received at landfills, incinerators, or transfer stations. Historically, the predominant states of origin for solid waste imports have been the four states contiguous to Indiana (Illinois, Michigan, Ohio, and Kentucky). In 1999, no waste was received from East Coast states and commonwealths for the first time since the implementation of facility quarterly reports. Less than 700 tons were received from New Jersey and Virginia in 2000, and about 17 tons were received from New Jersey, Georgia, and Puerto Rico combined in 2001. In 2002, 17 tons were received from East Coast states and 584 tons were re-

ceived from California. 1995 waste imports were nearly double the 1994 total and, as figure 15 shows, 1996 imports were more than double the 1995 total. Out-of-state waste received by Indiana facilities increased by 32 percent from 1996 to 1998 to their highest level since totals were reported (over 2.7 million tons). In 1999, out-of-state waste receipts decreased by about one million tons and stayed steady through 2002. In 2003, out-of-state waste decreased again, accounting for 9 percent of the waste disposed at all of Indiana's disposal facilities and 13 percent of the waste disposed in MSW landfills.

Figure 15. Annual Waste Imports by Region of Origin

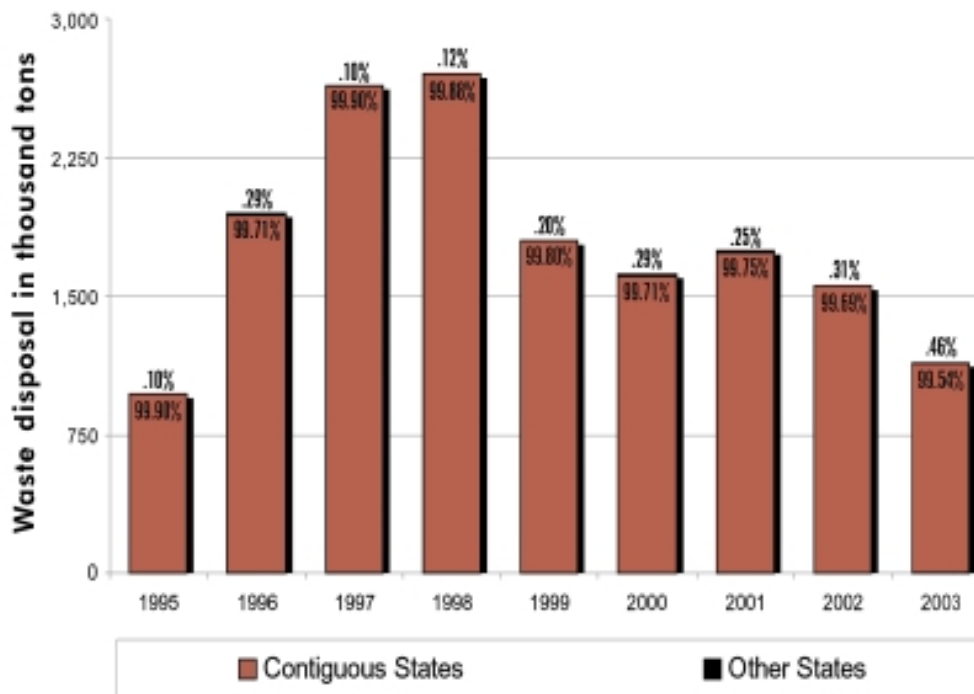


Table 17 details the state origin and amount of out-of-state waste received at Indiana solid waste facilities during 2003. Figure 16 shows this information from 1995 through 2003. Illinois has been historically the largest source of waste imported to Indiana. In 2003, Illinois waste accounted for 73 percent of the out-

of-state waste received by Indiana solid waste facilities. (Although Illinois remains the largest source state for waste imports, the 2003 amount and percentage decreased significantly from 2002 totals of 1,376,041 tons and 88 percent.) Sixty-four percent of that waste came from the Chicago area.

Table 17.
Out-of-State Waste Received During 2003 (1)

Total Tons: 1,134,879					
State	Tons	State	Tons	State	Tons
County Name	Received	County Name	Received	County Name	Received
Illinois	831,010	Kentucky	80,036	West Virginia	318
Champaign	7	Boone	1,486	Kanawha	12
Clark	2,263	Breckinridge	3	Putnam	306
Clay	113	Daviess	139	Tennessee	277
Coles	20	Fayette	2	Lawrence	47
Cook	528,391	Hardin	931	Obion	3
Crawford	11,099	Henderson	65,401	Shelby	203
Douglas	12	Henry	3,476	Tipton	24
DuPage	113	Jeffersonville	7,709	Virginia	249
Edgar	1,948	Jessamine	709	Richmond City	249
Grundy	104	Marshall	2	Utah	199
Kane	33	Montgomery	5	Salt Lake	199
Kankakee	7,624	Muhlenberg	5	Kansas	173
Lake	54	Pulaski	6	Doniphan	133
Lawrence	12,089	Scott	42	Wyandotte	40
Livingston	190	Shelby	2	Colorado	97
Madison	169	Unknown	1	Adams	47
Marion	3	Webster	13	Denver	23
Montgomery	712	Whitley	104	Unknown	28
Moultrie	71	Michigan	77,777	New York	83
St. Clair	10	Berrien	1,837	Broome	12
Unknown	260,902	Branch	72,818	Clinton	41
Vermilion	586	Cass	2,166	Suffolk	30
Wabash	55	Ingham	4	New Hampshire	61
Wayne	199	Jackson	12	Merrimack	61
Will	4,244	Kalamazoo	30	Minnesota	60
Ohio	140,832	Livingston	86	Hennepin	60
Allen	17	St. Joseph	328	Mississippi	51
Auglaize	1,137	Unknown	455	Coahoma	30
Champaign	73	Van Buren	41	De Soto	3
Clinton	57	Missouri	1,906	Washington	18
Cuyahoga	95	Clay	116	Delaware	39
Darke	6,272	Franklin	21	New Castle	39
Defiance	1	Jackson	567	Pennsylvania	27
Franklin	731	Lincoln	517	Montgomery	12
Greene	0.4	St. Charles	45	York	15
Hamilton	2,272	St. Louis	593	Georgia	24
Medina	131	St. Louis City	47	Rockdale	24
Mercer	11,373	Wisconsin	682	Vermont	15
Miami	96,209	Dane	32	Chittenden	15
Montgomery	142	Waukesha	650	Louisiana	11
Ottawa	22	Iowa	609	Bossier	5
Paulding	379	Johnson	572	Morehouse	6
Preble	507	Polk	37	California	3
Shelby	6,001	Texas	340	San Bernardino	3
Summit	11	Dallas	188	Arkansas	1
VanWert	15,112	Denton	81	Woodruff	1
Warren	114	Harris	5	New Jersey	1
Williams	9	Orange	66	Gloucester	1
Wood	168				

(1) About 7,799 tons were sent back to out-of-state facilities by Indiana transfer stations.

Figure 16.
Annual Waste Imports by State of Origin

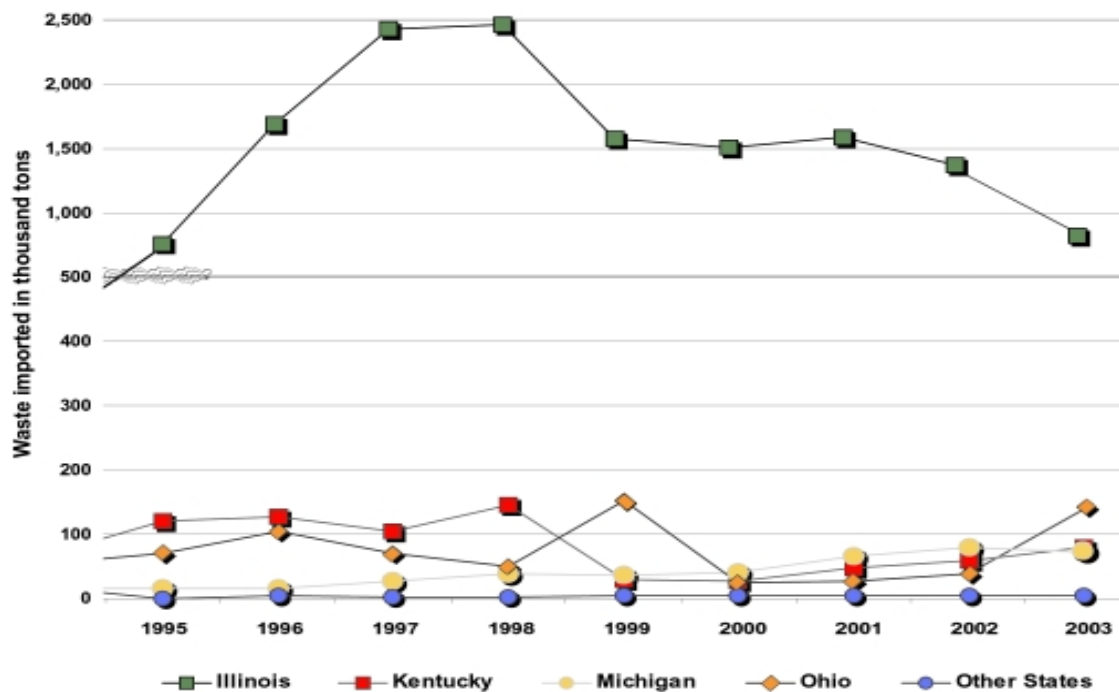


Table 18 displays the amount of out-of-state waste received by Indiana's permitted solid waste facilities by each reported waste type during 2003. Table 19 displays similar information from 1995 through 2003 for municipal and non-municipal waste. MSW landfills have consistently received most of the waste imported from other states.

Table 18.
Amount of Out-of-State Waste Received by Solid Waste Facilities by Facility Type and Waste Type During 2003

Waste Type	Tons of Waste Received					
	Municipal Solid Waste Landfills	Construction/ Demolition Sites	Non-MSW ⁽¹⁾ Landfills	Incinerators ⁽²⁾	Transfer Stations ⁽²⁾	All Facilities
Municipal	863,363	0	0	211	54,104	917,678
C/D	19,658	64,573	0	0	168	84,399
Foundry	684	0	0	0	0	684
Coal Ash	0	0	0	0	0	0
FGD Waste	0	0	0	0	0	0
Other NonMSW	115,138	0	0	16,410	568	132,116
TOTAL	998,843	64,573	0	16,621	54,840	1,134,878

⁽¹⁾ Due to the reclassification of the Heritage Landfill as an MSW landfill, Dillman Road Wastewater Treatment Plant was the only Non-MSW landfill in 2003. This landfill typically accepts no out-of-state waste.

⁽²⁾ No processing facilities other than incinerators and transfer stations operated during 2003.

Figure 17 shows that municipal solid waste historically has accounted for the largest percentage of waste imports. However, non-municipal waste imports increased considerably between 1995 and 1998. This increase might have been due to imports of waste materials to be used as alternative daily cover by landfills. Alternative daily cover amounts were not included as waste in this report since 1999.

Figure 17.
Annual Amount of Out-of-State Waste Received by Solid Waste Facilities

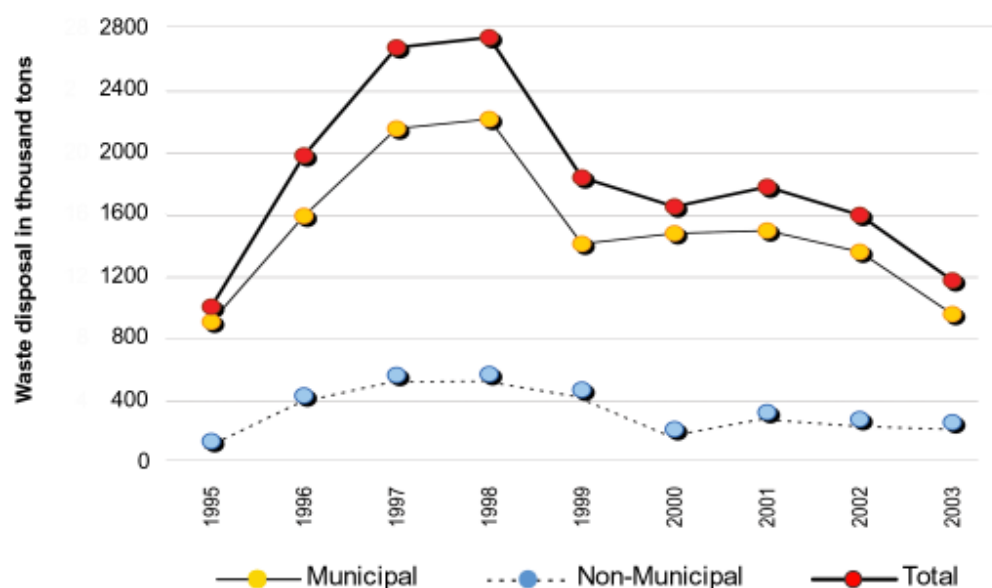


Table 19.

Annual Amount of Out-of-State Waste Received by Solid Waste Facilities by Facility Type and Waste Type

Landfill Type	Waste Type	Tons of Waste Received								
		1995	1996	1997	1998	1999	2000	2001	2002	2003
Municipal Solid Waste Landfills ⁽¹⁾	MSW	841,125	1,521,451	2,100,837	2,153,579	1,336,984	1,412,547	1,390,868	1,249,114	863,363
	NonMSW	82,334	311,637	482,421	494,767	381,467	164,495	274,396	195,887	135,480
	TOTAL	923,459	1,833,088	2,583,258	2,648,346	1,718,451	1,577,042	1,665,264	1,445,001	998,843
Construction/ Demolition Sites	MSW	0	0	0	0	0	0	0	0	0
	NonMSW	6,775	77,398	39,468	29,234	23,578	1,560	1,416	21,428	64,573
	TOTAL	6,775	77,398	39,468	29,234	23,578	1,560	1,416	21,428	64,573
Nonmunicipal Solid Waste Landfills	MSW	0	0	0	0	0	0	0	0	0
	NonMSW	0	0	0	2,404	21,831	235	2,729	4,491	0
	TOTAL	0	0	0	2,404	21,831	235	2,729	4,491	0
Incinerators (nonhospital)	MSW	2,560	7,777	5,228	5,488	11,603	9,851	11,815	1,345	211
	NonMSW	171	599	855	1,505	1,303	1,396	897	14,451	16,410
	TOTAL	2,731	8,376	6,083	6,993	12,906	11,247	12,712	15,796	16,621
Transfer Stations ⁽²⁾	MSW	24,359	22,673	10,448	17,988	22,520	17,093	54,016	69,136	54,104
	NonMSW	6,621	604	519	737	683	4,724	3,641	2,078	736
	TOTAL	30,980	23,277	10,967	18,725	23,203	21,817	57,657	71,214	54,840
All Facilities	MSW	868,044	1,551,901	2,116,513	2,177,055	1,371,107	1,439,491	1,456,699	1,319,595	917,679
	NonMSW	95,901	390,238	523,263	528,647	428,862	172,410	283,079	238,335	217,199
	TOTAL	963,945	1,942,139	2,639,776	2,705,702	1,799,969	1,611,901	1,739,778	1,557,930	1,134,878

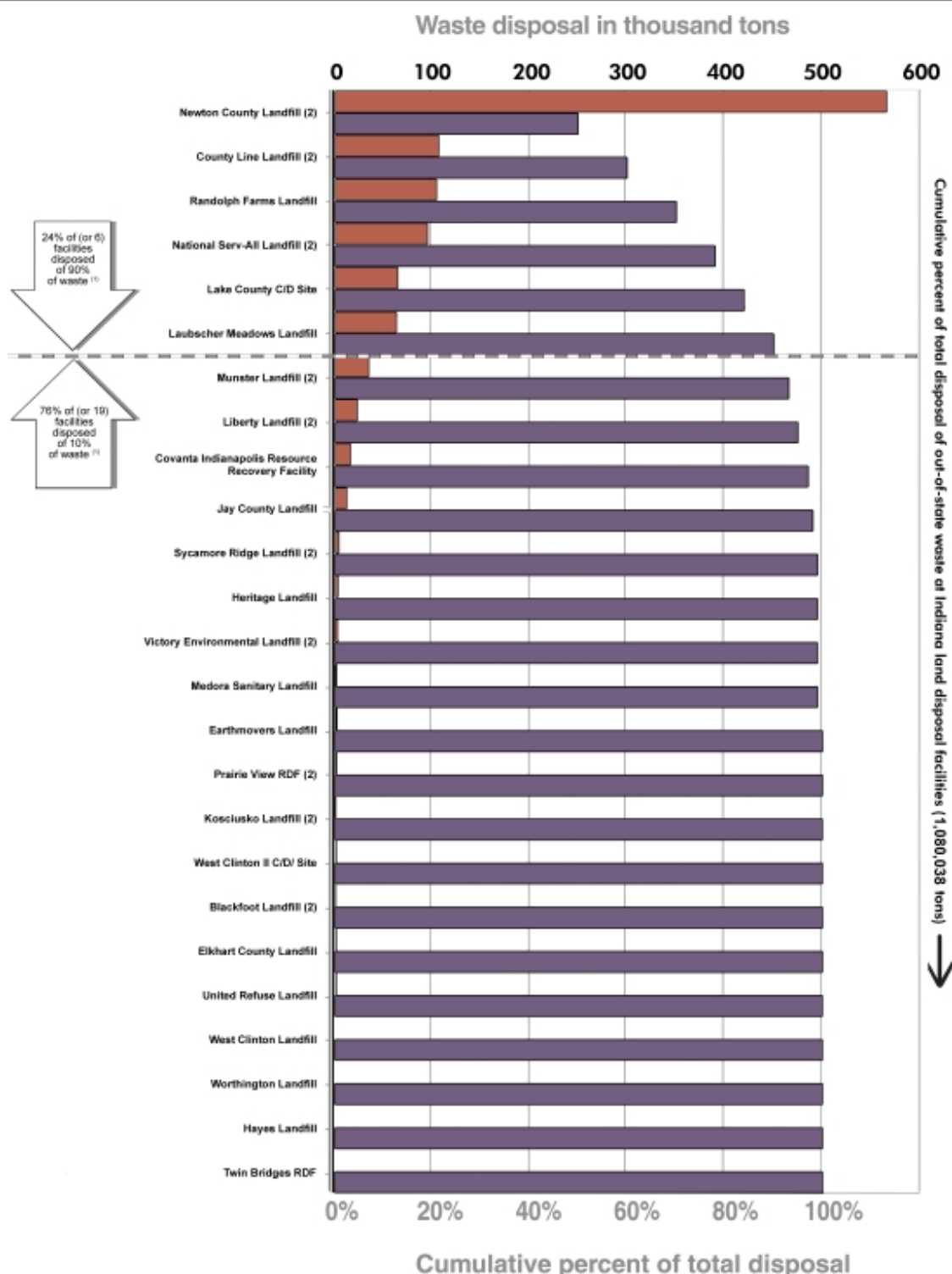
(1) This reflects only out-of-state waste shipped directly to MSW landfills. Most of the out-of-state waste received by transfer stations was sent to Indiana MSW landfills for final disposal. However, these MSW landfills reported the origin of this out-of-state waste as the county in which the transfer station was located, rather than the state in which the waste originated, in accordance with IDEM guidance.

(2) Between 1995 and 1996, the majority of this waste was sent to Indiana final disposal facilities. In 1997, 30% of out-of-state waste received by Indiana facilities was sent to either MI or KY facilities for disposal. In 1998, 45% was sent out-of-state for disposal, mostly to MI or KY. Transfer station exports began decreasing in 1999, and continued through 2001, when 3% (about 1,888 tons) of out-of-state waste received was sent to other states, mostly KY but also MI and OH. 2002 exports increased to over 20% (about 14,382 tons); however, all this increase was due to one transfer station in Clark County. Again, over 97% of exports went to KY, and the remainder went to MI and OH. 2003 exports by transfer stations comprised just over 14% of out-of-state waste (7,799 tons). Again, over 90% of this was from the Clark County transfer station, sent to Kentucky, with the remainder sent to Michigan and Ohio.

Figure 18 shows the distribution of the disposal of out-of-state waste among Indiana solid waste facilities. Of the 25 facilities that received out-of-state waste during 2003, six (24%) disposed of 90%

of that waste. Seventy-three percent of the imported waste received by these six facilities was from Illinois. The other 19 facilities (76%) disposed of the remaining 10% of the imported waste.

Figure 18.
Distribution of Disposal of Out-of-State Waste Disposed at Indiana Solid Waste Facilities During 2003



⁽¹⁾ Percentages in the text boxes exclude facilities not taking out-of-state waste, therefore, they do not correspond exactly with percentages in Figure 10.

⁽²⁾ These landfills received out-of-state waste from Indiana transfer station(s).

Table 20 summarizes the annual amount of out-of-state waste received by Indiana's solid waste facilities during 2003. Table 21 provides a detailed look at the amount of waste that these facilities received from each state.

Although Indiana imports a considerable amount of solid waste, it also exports waste, primarily to contiguous states.

A brief discussion of waste exports was provided in the previous section on solid waste processing facilities (see page 26).

"2003 Solid Waste Facility Profiles" at the end of this report provides more detailed summaries of waste imports to landfills, incinerators, and transfer stations.

Table 20.
Total Out-of-State Waste Received by Facility During 2003

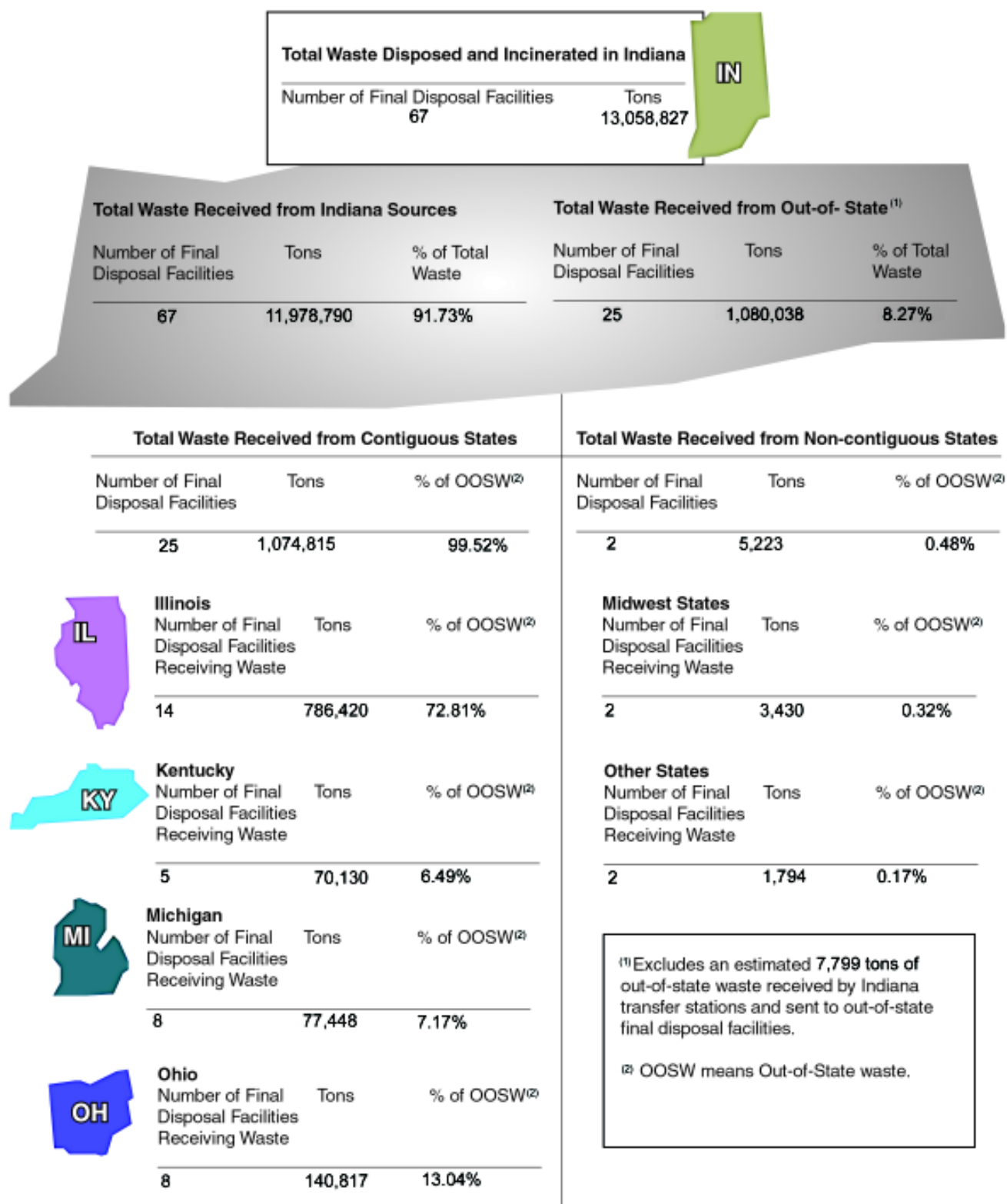
County Location of Facility	Facility Name	Type of Facility	Tons of Out-of-State Waste Received
Allen	National Serv-All Landfill	MSW Landfill	93,932
Allen	United Refuse Landfill	MSW Landfill	291
Clark	Bi-Co Transfer Station	Transfer Station	7,094
De Kalb	Merritt Processing Facility	Transfer Station	6
Elkhart	Earthmovers Landfill	MSW Landfill	2,003
Elkhart	Elkhart County Landfill	MSW Landfill	318
Fulton	County Line Landfill	MSW Landfill	104,739
Greene	Worthington Landfill	MSW Landfill	8
Hendricks	Twin Bridges Recycling and Disposal Facility	MSW Landfill	1
Henry	Hayes Landfill	MSW Landfill	6
Jackson	Medora Sanitary Landfill	MSW Landfill	2,372
Jay	Jay County Landfill	MSW Landfill	12,812
Knox	Jamax Transfer Station	Transfer Station	20,084
Kosciusko	Kosciusko Landfill	MSW Landfill	645
Lagrange	Scott Resource Recovery & Transfer Facility	Transfer Station	9
Lake	Munster Landfill	MSW Landfill	34,769
Lake	Illiana Transfer #1	Transfer Station	23,101
Lake	Lake County C/D Site	Construction/Demolition Site	63,966
Lake	Waste Management of Northeast Indiana	Transfer Station	964
La Porte	Waste Management of Laporte County	Transfer Station	11
Marion	Covanta Energy Indianapolis Resource Recovery Facility	Incinerator	16,621
Newton	Newton County Landfill	MSW Landfill	544,245
Noble	Kendallville Iron & Metal Transfer Station	Transfer Station	40
Pike	Blackfoot Landfill	MSW Landfill	461
Porter	Able Disposal Recycling and TS	Transfer Station	313
Putnam	Heritage Landfill	MSW Landfill	4,088
Randolph	Randolph Farms Landfill	MSW Landfill	102,831
St. Joseph	Prairie View Recycling & Disposal Facility	MSW Landfill	1,521
Vanderburgh	Laubscher Meadows Landfill	MSW Landfill	62,564
Vanderburgh	Materials Recycling and Transfer Station	Transfer Station	2,815
Vermillion	West Clinton II C/D Site	Construction/Demolition Site	607
Vermillion	West Clinton Landfill	MSW Landfill	43
Vigo	Victory Environmental Landfill	MSW Landfill	3,021
Vigo	Sycamore Ridge Landfill	MSW Landfill	5,010
Warren	Tri-County Transfer Station	Transfer Station	403
White	Liberty Landfill	MSW Landfill	23,164
Total for All Facilities			1,134,878

Table 21.

Out-of-State Waste Received by Indiana Solid Waste Facilities During 2003

County	Facility Name	Facility Type	» » Contiguous States « « » Other« » Total « % of Total					Tons	Tons
			IL	KY	MI	OH	States		
Name									
Allen	National Serv-All Landfill	MSW Landfill	0	0	72,864	21,068	0	93,932	8.3%
Allen	United Refuse Landfill	MSW Landfill	0	0	7	284	0	291	0.0%
Clark	Bi-Co Transfer Station	Transfer Station	0	7,094	0	0	0	7,094	0.6%
De Kalb	Merritt Processing Facility	Transfer Station	0	0	0	6	0	6	0.0%
Elkhart	Earthmovers Landfill	MSW Landfill	0	0	2,003	0	0	2,003	0.2%
Elkhart	Elkhart County Landfill	MSW Landfill	0	0	318	0	0	318	0.0%
Fulton	County Line Landfill	MSW Landfill	104,739	0	0	0	0	104,739	9.2%
Greene	Worthington Landfill	MSW Landfill	8	0	0	0	0	8	0.0%
Hendricks	Twin Bridges Recycling and Disposal Facility	MSW Landfill	1	0	0	0	0	1	0.0%
Henry	Hayes Landfill	MSW Landfill	0	0	0	6	0	6	0.0%
Jackson	Medora Sanitary Landfill	MSW Landfill	0	1,157	0	1,215	0	2,372	0.2%
Jay	Jay County Landfill	MSW Landfill	0	0	0	12,812	0	12,812	1.1%
Knox	Jamax Transfer Station	Transfer Station	20,084	0	0	0	0	20,084	1.8%
Kosciusko	Kosciusko Landfill	MSW Landfill	0	0	645	0	0	645	0.1%
Lagrange	Scott Resource Recovery & Transfer Facility	Transfer Station	0	0	9	0	0	9	0.0%
Lake	Munster Landfill	MSW Landfill	34,769	0	0	0	0	34,769	3.1%
Lake	Illiana Transfer #1	Transfer Station	23,101	0	0	0	0	23,101	2.0%
Lake	Lake County C/D Site	Construction/Demolition	63,966	0	0	0	0	63,966	5.6%
Lake	Waste Management MW IN TS	Transfer Station	964	0	0	0	0	964	0.1%
La Porte	Waste Management LaPorte TS	Transfer Station	0	0	11	0	0	11	0.0%
Marion	Covanta Energy Indianapolis Resource Recovery Facility	Incinerator	4,419	5,940	4	1,976	4,282	16,621	1.5%
Newton	Newton County Landfill Partnership	MSW Landfill	544,245	0	0	0	0	544,245	48.0%
Noble	Kendallville	Transfer Station	0	0	30	10	0	40	0.0%
Pike	Blackfoot Landfill	MSW Landfill	52	409	0	0	0	461	0.0%
Porter	Able Disposal Recycling and Transfer Station	Transfer Station	34	0	279	0	0	313	0.0%
Putnam	Heritage Landfill	MSW Landfill	2,376	60	86	625	941	4,088	0.4%
Randolph	Randolph Farms Landfill	MSW Landfill	0	0	0	102,831	0	102,831	9.1%
St. Joseph	Prairie View Recycling and Disposal Facility	MSW Landfill	0	0	1,521	0	0	1,521	0.1%
Vanderburgh	Laubscher Meadows Landfill	MSW Landfill	0	62,564	0	0	0	62,564	5.5%
Vanderburgh	Materials Recycling and Transfer Station	Transfer Station	3	2,812	0	0	0	2,815	0.2%
Vermillion	West Clinton II C/D Site	Construction/Demolition	607	0	0	0	0	607	0.1%
Vermillion	West Clinton Landfill	MSW Landfill	43	0	0	0	0	43	0.0%
Vigo	Victory Environmental Landfill	MSW Landfill	3,021	0	0	0	0	3,021	0.3%
Vigo	Sycamore Ridge Landfill	MSW Landfill	5,010	0	0	0	0	5,010	0.4%
Warren	Tri-County Transfer Station	Transfer Station	403	0	0	0	0	403	0.0%
White	Liberty Landfill	MSW Landfill	23,164	0	0	0	0	23,164	2.0%
Total for All Facilities			831,010	80,036	77,777	140,833	5,223	1,134,878	

Figure 19.
Origin of Waste Disposed and Incinerated in Indiana During 2003



2003

Summary of Indiana Solid Waste Facility Profiles

(ordered alphabetically by county location of facility)



Indiana Department of Environmental Management
Office of Land Quality

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